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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,582	03/17/2004	Chiyoshi Sasaki	KAW-0049	6139

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EXAMINER

PAPE, ZACHARY

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

37

Office Action Summary	Application No.		Applicant(s)	
	10/803,582		SASAKI, CHIYOSHI	
	Examiner		Art Unit	
	Zachary M. Pape		2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) 1-7, 16-18 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 8-15 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The objections to claims 10, 11, and 14 have been withdrawn in view of the amendments to said claims.

Claims 8-15 are objected to for the following informalities:

Claims 8 and 9 recite, "at least one mechanically deformed portions of said metal plate" which appears to be incorrect. It appears it should be changed to read, "at least one mechanically deformed portion on said metal plate". The Examiner has interpreted the recitation as suggested above.

Claim 9 recites, "and press-connected thereto with use of while being bent along said slits" which is incorrect.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (US 6,357,514) in view of Zeighami et al. (US 2003/0183371).

With respect to claim 8, Sasaki et al. teaches a heat sink comprising: a heat dissipating fin portion (2) comprising a plurality of metal fins each having a heat

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receiving portion (22) and a heat dissipating portion (21) having elasticity (inherent in any material) which is bent along a specific configuration (See Fig 3 which shows the heat dissipating portion bent in a rectangular shape), a metal plate (1) having a plurality of slits (12) into which said respective heat dissipating portions are inserted while being bent along said slits and press-connected thereto (Column 10, Lines 30-33) with use of elastic deformation of the heat dissipating portion per se, and at least one mechanically deformed portions (10) of said metal plate to join said metal plate (1) and said heat dissipating portions (21) which are inserted into said respective slits and fixed thereto (The projecting portions (4) or the fitting member (3) press into the deformed portions (10) of the metal plate (1) to hold the heat dissipating portion (21) in place). Sasaki et al. fails to teach a fin fixing member to transfix said plurality of metal fins, and that the heat dissipating portion is elastic. Zeighami et al. teaches a plurality of heat sink fins (502) transfixed by a fin fixing member (500). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Zeighami et al. with that of Sasaki et al. to facilitate better and more even cooling of the fins. With respect to the limitations, "while being bent along said slits", "with use of elastic deformation of the heat dissipating portion per se", and "mechanically" (of "at least one mechanically deformed portions"), the presence of process limitation on product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965).

With respect to claim 9, Sasaki et al. teaches a heat sink comprising: a heat dissipating fin portion (2) comprising a plurality of metal fins (21) each having a heat

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receiving portion (22) and a heat dissipating portion (21) having elasticity (inherent in any material) which is bent along a specific configuration; a metal shield plate (1) having a plurality of slits (12) including curved portion (The slits are rectangular and thus have curves) into which said respective heat dissipating portions are inserted (See Fig 3) while being bent along said slits and press-connected thereto (Column 10, Lines 30-33) with use of while being bent along said slits; and at least one mechanically deformed portions (10) of said metal shield plate (1) to join said metal shield plate (10) and said heat dissipating portions (21) which are inserted into said respective slits and fixed thereto (The projecting portions (4) or the fitting member (3) press into the deformed portions (10) of the metal plate (1) to hold the heat dissipating portion (21) in place). Sasaki et al. fails to teach a fin fixing member to transfix said plurality of metal fins. Zeighami et al. teaches a plurality of heat sink fins (502) transfixed by a fin fixing member (500). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Zeighami et al. with that of Sasaki et al. to facilitate better and more even cooling of the fins. With respect to the limitations, "while being bent along said slits", and "mechanically" (of "at least one mechanically deformed portions"), the presence of process limitation on product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965).

With respect to claim 10, Sasaki et al. further teaches that each of said slits has a substantially same width corresponding to a thickness of said heat dissipating portion across the metal plate, and each of said slits spreads toward respective one end

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portions of said metal shield plate in a longitudinal direction with remaining portions paralleled each other (As illustrated in Fig 4).

With respect to claim 11, Sasaki et al. further teaches that each of said slits has a substantially same width corresponding to a thickness of said heat dissipating portion across the metal plate, and each of said slits spreads toward respective both end portions of said metal shield plate in a longitudinal direction with center portions paralleled each other (As illustrated in Fig 4).

With respect to claim 12, Sasaki et al. further teaches that each of said slits has a substantially same width corresponding to a thickness of said heat dissipating portion across the metal plate, and each of said slits is parallel each other in a longitudinal direction (As illustrated in Fig 4).

With respect to claim 13, Sasaki et al. further teaches that each of said heat receiving portion and said heat dissipating portion of said fin comprises a square flat plate portion (As illustrated in Fig 4).

With respect to claim 14, Sasaki et al. further teaches that the plurality of fins are placed in parallel in such a manner that respective heat receiving portions (22) of said fins form a single heat receiving face (That which is facing the joining portion (3)) as a whole.

With respect to claim 15, Zeighami et al. further teaches that the fin fixing member (500) comprises a heat pipe.

Response to Arguments

3. Applicant's arguments filed 6/30/06 have been fully considered but they are not persuasive.

With respect to the Applicant's remarks to claims 8 and 9 that, "Sasaki does not teach or suggest that any elastic deformation of the heat dissipating fins is used to press-connect the fins to the base member", the Examiner respectfully notes that such limitations are process limitations in a product claim. As such the presence of process limitation on product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZMP


LISA LEA-EDMONDS
PRIMARY EXAMINER